

# **CONTROL PROCESSOR FOR USE WITH A TRANSCEIVER IN AN OPTICAL WIRELESS NETWORK**

## **ABSTRACT OF THE DISCLOSURE**

For use with a transceiver employing an inertial sensor and capable of transmitting a laser beam to an other transceiver, a beam control processor and method of providing beam steering commands for a transmitter element of the transceiver. In one embodiment, the beam control processor includes a line-of-sight estimation subsystem configured to provide a line-of-sight pointing vector of the laser beam based on acceleration inertial motion data provided by the inertial sensor. The beam control processor also includes a line-of-sight control subsystem configured to generate beam steering commands for the transceiver as a function of the line-of-sight pointing vector.